

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): An optical transmission apparatus, comprising:
a frequency converter that converts a frequency band of an electric signal to be transmitted, into a specific frequency band higher than the frequency band; and
an electro-optic converter that performs electro-optic conversion on the frequency-converted electric signal ~~by a laser or an optical modulator.~~

Claim 2 (currently amended): The optical transmission apparatus according to claim 1, wherein ~~the a frequency converter converts ing the frequency band into a frequency band not lower than 500 MHz is used as the frequency converter,~~ and
wherein the electro-optic converter is a single-mode oscillation laser ~~is used as the electro-optic converter.~~

Claim 3 (currently amended): The optical transmission apparatus according to claim 1, wherein ~~a the frequency converter converts ing the frequency band into a frequency band not lower than 200 MHz is used as the frequency converter,~~
wherein the electro-optic converter is ~~and a multi-mode oscillation laser is used as the electro-optic converter.~~

Claim 4 (currently amended): An optical transmission apparatus, comprising:

a frequency converter that converts a frequency band of an electric signal to be transmitted, into a frequency band lower than the frequency band and not lower than 500 MHz; and

an electro-optic converter that performs electro-optic conversion on the frequency-converted electric signal ~~by a single-mode oscillation laser~~.

Claim 5 (currently amended): An optical transmission apparatus, comprising:

a frequency converter that converts a frequency band of an electric signal to be transmitted, into a frequency band lower than the frequency band and not lower than 200 MHz; and

an electro-optic converter that performs electro-optic conversion on the frequency-converted electric signal ~~by a multi-mode oscillation laser~~.

Claim 6 (currently amended): An optical transmission system, comprising an optical transmission apparatus that performs electro-optic conversion on an electric signal to be transmitted and feeds out the electric signal to an optical transmission line, the optical transmission line that transmits a signal light transmitted from the optical transmission apparatus, and an optical reception apparatus that receives the signal light transmitted from the optical transmission apparatus through the optical transmission line and performs opto-electric conversion on the signal light so as to receive the original electric signal,

wherein an optical transmission line with total return loss of not lower than 60 dB is used as the optical transmission line; and

wherein an optical transmission apparatus according to ~~any one of claims 1 through 5~~ is used as the optical transmission apparatus.

Claim 7 (new): An optical transmission system, comprising an optical transmission apparatus that performs electro-optic conversion on an electric signal to be transmitted and feeds out the electric signal to an optical transmission line, the optical transmission line that transmits a signal light transmitted from the optical transmission apparatus, and an optical reception apparatus that receives the signal light transmitted from the optical transmission apparatus through the optical transmission line and performs opto-electric conversion on the signal light so as to receive the original electric signal,

wherein an optical transmission line with total return loss of not lower than 60 dB is used as the optical transmission line; and

wherein an optical transmission apparatus according to claim 4 is used as the optical transmission apparatus.

Claim 8 (new): An optical transmission system, comprising an optical transmission apparatus that performs electro-optic conversion on an electric signal to be transmitted and feeds out the electric signal to an optical transmission line, the optical transmission line that transmits a signal light transmitted from the optical transmission apparatus, and an optical reception apparatus that receives the signal light transmitted from the optical transmission apparatus through the optical transmission line and performs opto-electric conversion on the signal light so as to receive the original electric signal,

wherein an optical transmission line with total return loss of not lower than 60 dB is used as the optical transmission line; and

wherein an optical transmission apparatus according to claim 5 is used as the optical transmission apparatus.

Claim 9 (new): The optical transmission apparatus according to claim 1, wherein the electro-optic converter is a laser or an optical modulator.

Claim 10 (new): The optical transmission apparatus according to claim 4, wherein the electro-optic converter is a single-mode oscillation laser.

Claim 11 (new): The optical transmission apparatus according to claim 5, wherein the electro-optic converter is a multi-mode oscillation laser.